Confirmation needed for follicular fluid estradiol levels in different ovarian stimulation protocols

Dear Sir,

I have read with great interest the manuscript by Garcia-Velasco et al. (Garcia-Velasco et al. 2001). Whereas the authors are to be congratulated for their scholarly discussion, it is unclear from their manuscript whether the follicular fluid estradiol concentrations were exceptionally low or whether the units were erroneously reported in pg/ml instead of ng/ml. In our experience, as well as in others’ (Bo-Abbas et al., 2001), estradiol concentrations in the follicular fluid range from 500 to 1000 ng/ml and not pg/ml. Is it a typographical mistake which the authors need to correct or a real 1000-fold lower concentration, which would definitely deserve a thorough discussion and careful elaboration and explanation?

The second point in their manuscript (Garcia-Velasco et al., 2001) which may also be problematic is the fact that the two compared groups did not differ only by the type of GnRH analogue (agonist versus antagonist), but also by different starting dosage of rFSH. The agonist group patients were started with 300 IU of recombinant (r)FSH/day, whereas the antagonist group patients were started with only 225 IU rFSH/day. Can the authors guarantee to the readers, or even themselves be unequivocally convinced, that different doses of FSH on the first days of stimulation (the so-called ‘recruitment stage’) do not affect the number of recruited follicles, and subsequently the generated estradiol levels?

All we can conclude, at this stage, is that different patients stimulated by different GnRH analogues and by different dosages of rFSH on the first few days of stimulation produce significantly different estradiol levels in the late follicular phase.

Obviously the study needs to be repeated, as the authors themselves seem to be aware, in a more strict and careful methodology of comparison whereby all the other parameters, except the GnRH analogue (agonist versus antagonist), remain fixed. Otherwise it resembles an algebraic equation with two or more unknown parameters.

References


Zeev Blumenfeld,
Reproductive Endocrinology
Dept. OB/GYN, Rambam Med.Ctr.
Technion-Faculty of Medicine,
Haifa 31096, Israel

E-mail: bzeev@techunix.technion.ac.il

Dear Sir,

We thank Dr Blumenfeld for his interest in our recent publication (Garcia-Velasco et al., 2001). Apart from our obvious typographical error (follicular fluid estradiol levels should be in ng/ml and not pg/ml as published), he is concerned about the effect of different starting doses on the final estradiol concentrations. In fact, we mentioned this issue at the end of our discussion as a limitation of the study. However, recent data confirm that both serum and follicular fluid hormone concentrations do not vary when different protocols of FSH are used at similar total doses, but do vary when different GnRH agonist regimens are used (Bo-Abbas et al., 2001). Our patients received comparable total FSH doses as shown in Table I. Anyhow, we agree with Dr Blumenfeld that further evidence is needed to confirm our findings.

References


Juan A. García-Velasco and Antonio Pellicer
IVI–Madrid,
C/Santiago de Compostela 88,
28035 Madrid, Spain

E-mail: jgvelasco@ivi.es